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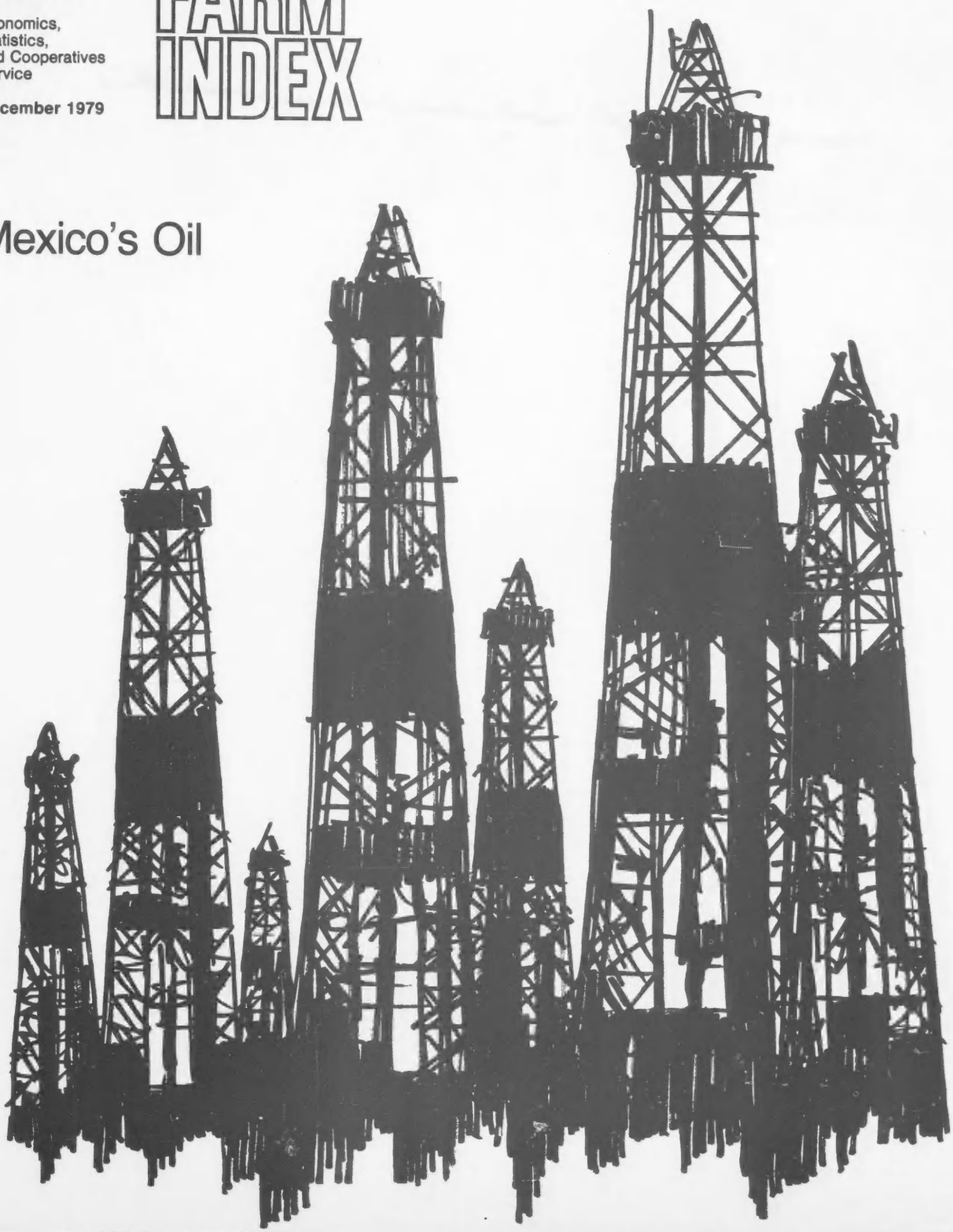
FARM INDEX

Mexico's Oil



Perspectives

Look for retail food prices to increase another 7 to 11 percent in 1980 on the heels of an 11-percent rise this year.

Current indications point to an increase of about 8 percent, if the weather cooperates. Much of the expected upswing will be tied to cost gains in processing and marketing. Weather problems that cut into crops and livestock output would pressure prices into higher levels of the 7- to 11-percent range.

Food price increases in the first half of 1980 are likely to be held somewhat in check by substantial supplies of pork and poultry, as well as some slackening in demand from a slowing economy.

Rapid price rises. However, after midyear, prices may advance more rapidly on the strength of a recovering economy and declines in meat supplies. But price advances will likely fall short of the gains notched in early 1978 and 1979.

Retail meat prices are expected to move ahead about 4 percent in 1980, compared with a 17-percent gain in 1979, with most of the rise after midyear.

Although stocks of processed vegetables are larger than a year ago, rising processing costs will still increase retail prices about 7 percent, against 6 percent in 1979. Fresh vegetable prices are forecast to rise 8 to 9 percent, with potato supplies smaller than in 1979. The rise this year is about 3 percent.

Half the increase. Fresh fruit prices are anticipated to climb near 7 percent in 1980, only half the jump for this year. Large noncitrus production this year and near record citrus output will keep the lid on these prices.

Inflationary pressures will likely drive up prices for cereals and bakery products 9 percent in 1980, despite large wheat supplies. Sizable grain exports will have little impact on retail prices because the farm value for these products accounts for less than one-fifth of the retail price.

Retail prices for sugar and sweets are expected to rise about 8 percent in the coming year. World production of sugar might fall short of consumption for the first time in 5 years, but any price increases will be moderated by record stocks.

A slight rise. Next year's farm value of crops and livestock may average only 1 percent higher than in 1979 because of record supplies of red meat through midyear and plentiful amounts of fruits, vegetables, and other commodities.

Weather disruptions could impact on food supplies and drive the farm value up as much as 10 percent from the 1979 level.

Marketing costs are expected to rise 9 to 12 percent, forced up by a 10- to 11-percent boost in labor charges, the largest component of this sector. Much of the labor cost runup can be attributed to the general inflation rate coupled with cost-of-living clauses in many workers' contracts.

Then there's the cost of energy. Indications are that energy costs may again increase sharply, further inflating prices.

This is the final issue of the Farm Index. It's being retired after a long and successful career serving agriculture.

The Farm Index was first published in 1962 and has remained an important link between the USDA and the general agricultural audience.

The Farm Index and its companion publication, the Agricultural Situation, are giving way to a single new, more informative publication—Farmline.

Farmline will provide current news and wide-ranging articles and analysis important to the decisionmaking process in today's agriculture.

Farmline will begin publication in the spring of 1980. Many of you will receive copies regularly in place of the Agricultural Situation or Farm Index. For further information about Farmline, please contact Dan Williamson, 500 12th St. S.W., GHI Bldg., Room 505, Washington, D.C. 20250.

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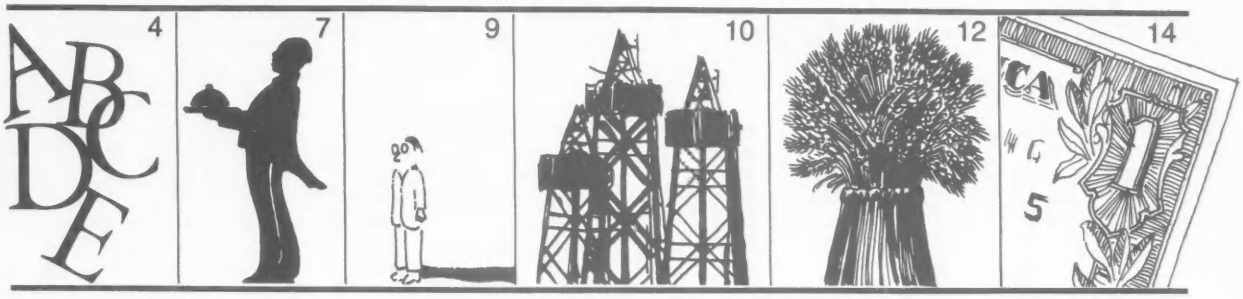

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Barry Murray, Editor

Adrie Custer, Geraldine Schumacher, Leland Scott, Dan Williamson, Contributing Editors; Linda Zelder, Production Assistant

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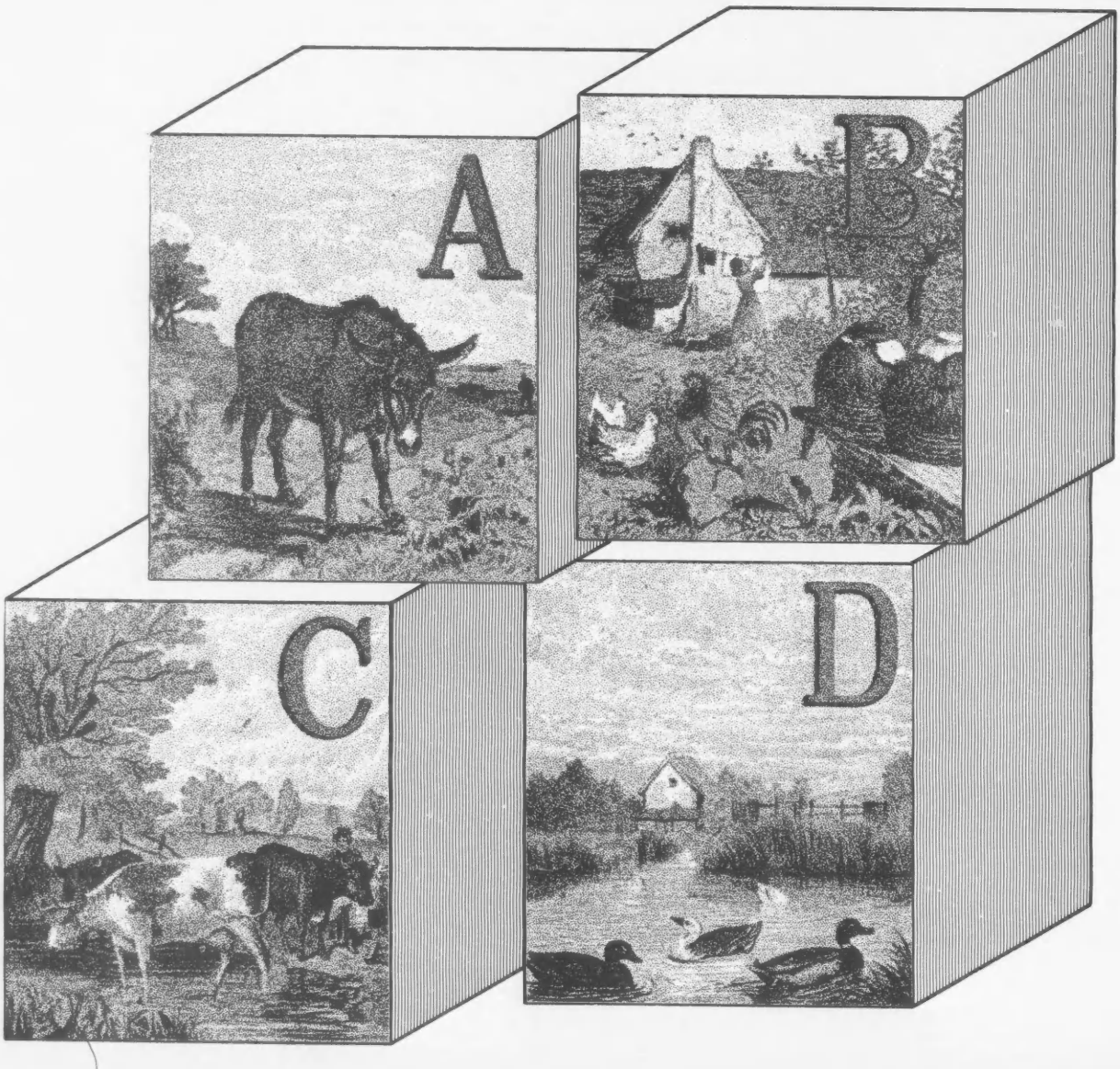
The ABC's of Rural Education



The education gap that separates farm residents from city folks seems to be closing after years of disparity.

Back in 1968, men operating or living on farms had an median of 8.9 years of formal education. This means that half the farm men had more than 8.9 years, and half had less. This put them far behind men in cities and suburbs who averaged more than 12 years of education.

Farm women also trailed their metro counterparts in 1968, although they averaged about 2 years more education than farm men.

In the 7 years between 1968 and 1975, however, both farm men and farm women took major strides toward closing the gap with metro residents. By 1975, farm men had more than halved the gap, while farm women virtually tied metro women in years of education.

Sharply behind

The nonmetro population as a whole—which includes farm and nonfarm residents—also lagged sharply behind the metro group in 1968 but had just about caught up by 1975. The nonmetro group averaged more years of schooling than the farm group because farm men continued to trail their nonfarm rural neighbors by over a year.

Although statistics show that the educational gap has narrowed, they do not apply to all segments within the farm population. For example, the difference between metro and farm blacks actually widened during the 1968–75 period, at least partly because young rural black males with more schooling have tended to move to the cities.

Nevertheless, this overall trend toward increased education suggests that more and more farm residents are staying in school longer. Although several factors may be involved, at least one is likely to be the importance of a formal education in getting a job. And a glance at statistics on educational levels of those 16 and older shows that farm residents who were in the labor force in 1977 were better educated than farm residents who weren't.

Big difference

The difference was substantial among white farm men, with those in the labor force averaging 12.3 years of school, 2.7 more years than those not in the labor force. The gap was less pronounced for farm women.

The gap between the metro and the farm group also depended to a great degree on labor force status. The difference in median school years completed between white metro and farm men was less than half a year, comparing labor force participants in both groups. It was only in the nonlabor force group that the metro men had a big edge in education over the farm men.

The advantage of education is by no means limited to nonfarm work. In 1975, more than half of farmers and farm managers had completed 4 years of high school or more, and they averaged over 3 years more education than male farm laborers and supervisors. In fact, many farmers with low levels of education have left agriculture, thus adding to the decline in the number with less than a high school education.

More education needed

Without diminishing the importance of practical experience, researchers say that today's farmers need more formal education than their forefathers to attain the scientific and managerial skills needed in modern farming. They must be able to select the most efficient machinery, plant the optimum crop varieties, operate complex nutrition systems to feed livestock, plan land use, and successfully handle a host of managerial and financial headaches.

How much formal education is enough for today's farm folk? The answer, of course, varies with the goals and situations of the individuals. But statistics show that more and more have completed 4 years of high school. In the short period between 1968 and 1975, as a younger generation with more education entered the ranks of male farmers and farm managers aged 25 to 44, the proportion of that group with a complete high school education rose from 63 to 74 percent.

Yet, despite their progress, they still didn't fare as well as those in some other occupations. Even their 74-percent high school completion rate in 1975 left them well behind their white collar counterparts, including managers in the nonfarm sector.

High school completion

And only about a third of male farm laborers and supervisors in the same 25–44 age group had completed high school in 1975, up from a fifth but still behind blue collar workers outside of agriculture.

Although the farm group as a whole continued to trail many other occupations in 1975, the progress is evident. However, there is nothing encouraging about the trend among black farm people. The gap between metro and farm blacks widened as the percentage of black farm men with 4 years of high school actually declined from 13 percent in 1968 to about 9 percent in 1975.

On a more positive note, young people planning on a career in farming are increasingly preparing the way with a college education.

College background

From 1968 to 1975, the influx of young men with college backgrounds helped push the percentage of college-educated male farmers and farm managers, aged 25 to 44, from 5.1 to 11.6 percent. At the same time, the proportion of college-educated male farm laborers and supervisors grew from 0.4 to 4.1 percent.

A college degree also became more common among older farmers, aged 45 to 64, as farmers turning 45 entered the group and those reaching 65 were no longer included. Along with this, the percentage with a college education jumped from 1.4 percent in 1968 to 3.6 in 1975. However, among farm laborers and supervisors in the same age group, the proportion with 4 years of college actually declined from 3.4 to 1.8 percent.

This overall trend toward increased college education among farmers appears to be continuing into the new generation. A survey found that about 46 percent of all high school seniors from families headed by a farmer or farm manager intended to go to college. Only seniors from "white collar" families had a higher percentage.

No college plans

Yet, 38 percent said that did not plan to attend college—a higher negative response than any other group except seniors from families headed by transportation operatives, such as truck drivers and railroad workers.

Many Americans, both metro and nonmetro, choose still another means of attaining training: adult education. This description applies to a vast range of experiences from seminars to single-session workshops.

In all regions, farm residents were far less likely to participate in adult education than metro people. Only in the West did as many as 10 percent of the farm population take advantage of adult education.

Lack of opportunity may be a contributing factor. While urban people can often attend night courses offered in convenient locations, farm people may be unable or disinclined to make a long trip to a central location serving a sprawling farm region.

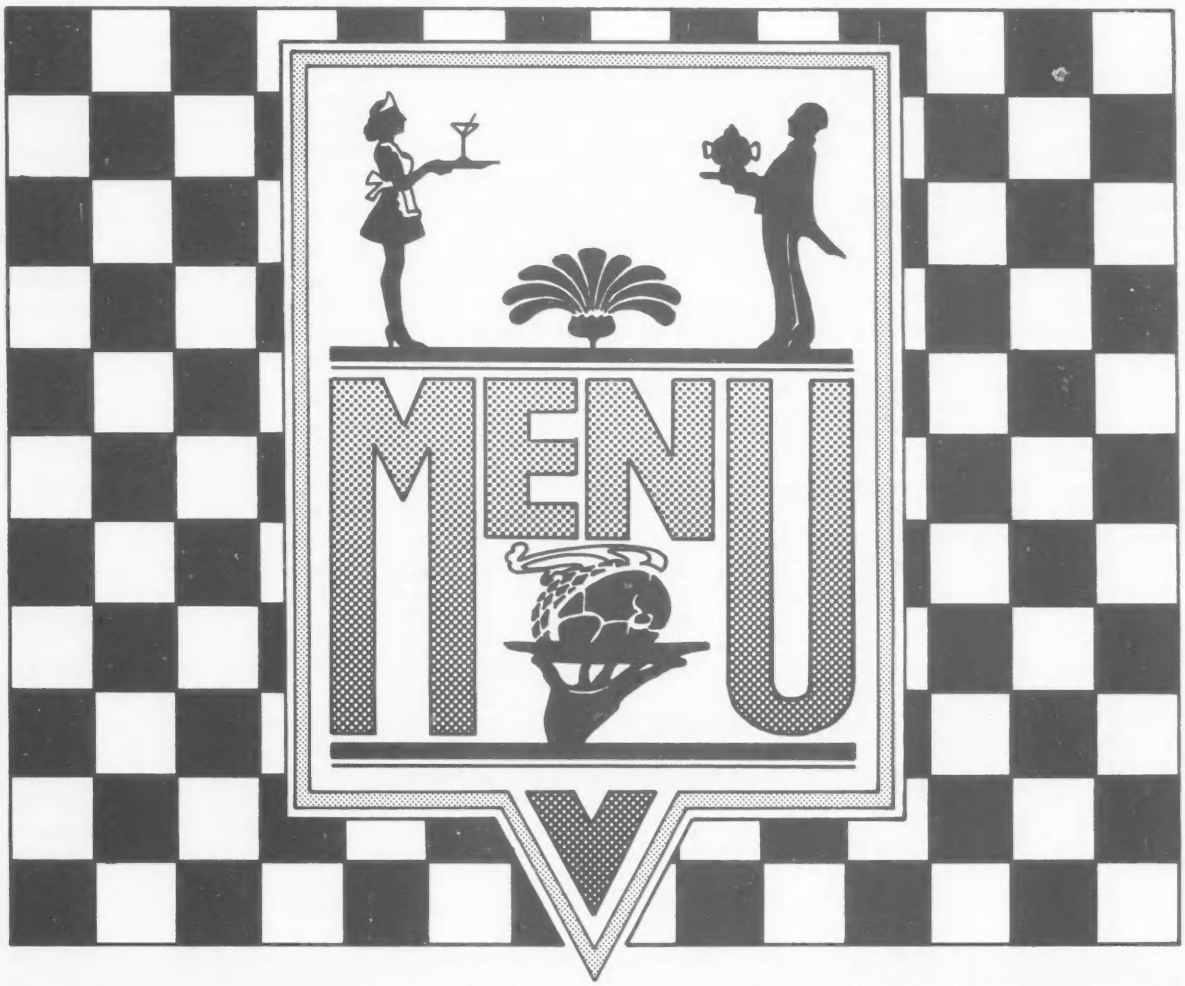
[Based on the manuscript, "The Educational Level of Farm Residents and Workers," by Frank Fratoe, Economic Development Division.]

HIGH SCHOOL EDUCATED[1]

Age and occupation group	Males		Females	
	1968	1975	1968	1975
	Percent			
25 to 44 years old:				
Professional workers	97	99	98	98
Managers, nonfarm	83	93	77	88
Sales workers	88	93	73	83
Craft workers	57	73	51	68
Laborers, nonfarm	30	53	[2]	58
Service workers	61	74	43	62
Farmers and farm managers	63	74	[2]	[2]
Farm laborers and supervisors	21	35	49	66
45 to 64 years old:				
Professional workers	93	95	96	96
Managers, nonfarm	73	83	68	79
Sales workers	74	84	62	73
Craft workers	39	52	49	59
Laborers, nonfarm	16	26	[2]	50
Service workers	33	43	29	42
Farmers and farm managers	30	44	[2]	[2]
Farm laborers and supervisors	14	22	36	53

[1] Employed persons who have completed 4 or more years of high school.
[2] Data base less than 75,000 persons.

Truth In Menus



Menus listing foreign cuisines aren't the only ones that may need to be translated.

Examinations of the accuracy of menus in Washington, D.C., and other areas have uncovered much misrepresentation in the language used to describe foods.

Consumer groups, regulatory agencies, and the food industry are now pressuring restaurants to accurately describe food offerings.

The survey of Washington D.C. restaurants found:

- Commercially processed and previously frozen products served instead of fresh.
- Meats of lower quality than stated on the menu.

• Domestic products described as being imported.

• A cut of meat or a product different from that listed on the menu.

• A size or quantity of product which is less than advertised.

The most widespread substitution of frozen foods for those advertised as fresh involved seafoods. In the Washington, D.C., survey, all of the "fresh" shrimp had been frozen.

Freshly made

Nearly 15 percent of the restaurants surveyed publicizing food freshly made or baked on the premises actually used products from a commercial bakery.

In addition, over 70 percent of the "fresh" fruit salads and cocktails contained some commercially packed fruit sections with perservatives.

Beef eaters were also shortchanged in many Washington restaurants. Beef was frequently misrepresented as USDA Prime.

The label Prime generally indicates a product which is first in quality. One of the characteristics of Prime Beef is the liberal quantities of fat spread throughout the meat which enhances juiciness, flavor, and tenderness.

Prime beef usually comes from young cattle given highly nutritional feed to yield a top-quality meat. It also requires costly trimming. The next lower grade is Choice.

Over 85 percent of the restaurants which featured roasts and various steak cuts as Prime could not substantiate this claim.

Ground meat

Nearly all the restaurants surveyed purchased a commercial ground meat. However, that wasn't the way it was listed on the menu. Ground Beef showed up in 26 variations on the menus examined, ranging from Chopped Sirloin or Chopped Sirloin Steak to Chopped Tenderloin Steak. A few of the restaurants even upgraded this product to Prime.

In over three-quarters of the restaurants denoting particular geographic origins of specific seafood entrees, the products came from somewhere different. For example, Spanish shrimp came from Mexico; African Lobster Tail from Florida; Colorado Rainbow Trout from Japan; and Everglade Frog Legs from India.

Origins of other products were also distorted. At least 25 percent of the sampled restaurants indicating imported products either served a domestic substitute, or the country of origin was different than stated: Imported Swiss Cheese was domestic; Imported Prosciutto Ham was domestic; and Danish Ham came from Poland and Hungary.

Chicken substituted

Many eating establishments served meats totally different than their menu indicated. In over 75 percent of the restaurants where chicken was identified as the basic ingredient of a dish, a commercially cooked turkey product was used—especially instead of sliced chicken or chicken salad. Boneless chicken is more expensive to prepare than a similar tasting turkey product because of labor costs in deboning.

Other significant disparities were also found. These included substituting expensive Veal Cutlet with less expensive Veal Steak and Veal Patties; cuts of Beef Round instead of Sirloin and Flank Steaks used in lieu of Beef Tenderloin.

Three-quarters of the establishments indicating portions were prepared or sliced to meet a specific size and weight actually served 10 to 20 percent less.

Surveys in other parts of the country have met with similar results: The consumer is often not receiving the food described on the menu.

Lack of knowledge

This may be the result of the restaurant management's lack of knowledge and understanding of different food identities, or attempts to enhance menu appeal to encourage the consumer to buy. Whatever the case, many local governments are taking steps to educate both consumers and restaurant management in developing accurate menu language.

In Washington, D.C., a "Menu Dictionary—A Food Language Guide For The Consumer" was developed by the city government. Also, restaurant management can consult with technical personnel on developing accurate menu jargon. Field inspections were also made to check menu accuracy, and offenders were reprimanded by city authorities.

Earlier this year, a followup was conducted among half of the original Washington, D.C. establishments surveyed to evaluate improvement and to compare findings with the earlier survey.

In the original survey menu violations were found in nearly 85 percent of the restaurants. In the followup that figure dropped to 49 percent.

[Based on the report, "A Survey Of The Accuracy Of Menus in Public Eating Establishments In The District of Columbia," and special materials provided by Evelyn Kaitz of the National Economics Division.]

The Nation of "Loners"?

We may not be a Nation of "loners," but more and more Americans are living alone and this trend is having an impact on food buying patterns.

The number of people who live alone in the U.S. nearly doubled in the last 25 years. Today, more than one in five households is occupied by only one person. By 1990, the ratio is expected to be one in four.

Although these people represent less than 8 percent of the total population, they make 12 percent of all food expenditures. Thus, this group's food spending behavior already affects retail food demand, and it's likely to exert more influence in the future as the number of single-person households increases.

Unique habits

People who live alone have some unique buying habits not possible in multiperson households. For example, the individual tends to buy only those foods they really want since they don't have to consider the tastes of others; they also spend significantly more on meals away from home. On a per capita basis, the person living alone spends approximately one and a half times as much on food.

These are some of the results reported by USDA's Economics, Statistics, and Cooperatives Service (ESCS) after a study of the food spending patterns of people who live alone. The study was based on a portion of the Bureau of Labor Statistics' (BLS) latest Consumer Expenditure Survey (1973-74).

About the only thing single people have in common is the fact that they live alone—they seldom have similar food purchasing behavior. The buying habits of those living alone, as for all other groups, reflect income, sex, and age factors. Obviously, a high income, young bachelor will not buy the same food as an elderly widow living on a small pension.

Group patterns

As a group, individuals spent less on cereal and cereal products and more on bakery products than those living as part of a larger household. They also spent considerably less on beef and veal for use at home—probably because they dine out more frequently.

A slightly higher percentage of the at-home food budget of persons living alone went to processed dairy products. They also spent more for fresh and processed fruits, and nonalcoholic beverages.

Income, sex, and age

Both lower and upper income, young (35 years and younger) men and women spent considerably more on food away from home and less on food at home than the average single-person household. Upper income, young men, the largest group of males living alone, spent the most eating out—more than half of their food dollars.

For food at home, both lower and upper income groups of both sexes in the youngest age group spent considerably more on prepared foods than the average.

Lower income, middle-aged (36 to 64 years old) men and women used more of their food dollars at home and fewer away from home than the average. On the other hand, middle-aged men and women with higher incomes spent more on food away from home.

For food at home, all income levels in the middle-aged group, with the exception of upper income men, spent more on pork and less on prepared foods. Upper income, middle-aged men spent more on beef and considerably more on prepared foods.

Lower income, elderly (64 years and older) men and women and upper income, elderly women spent less away from home than the average. Lower income, elderly women—a large group—spent only 10 cents out of every food dollar away from home. Upper income, elderly men spent much more away from home than the average.

Lower income, elderly men and women spent a higher proportion of their food-at-home dollar on bakery goods than the average. Although women in this category spent less on meats and more on fruits and vegetables, men spent more of their at-home food dollar on meat and eggs than any other group.

Both men and women in the upper income, elderly group spent a very high proportion of their at-home food dollar on fruits and vegetables. And all elderly people, except upper income men, spent less of their home food dollar on prepared foods.

[Based on "Food Expenditure Patterns of Single Person Households," by Benjamin H. Sexauer and Jitendar S. Mann, AER-428, July 1979.]

Mexico's Oil

Few economies and societies are so tangled together as those of the U.S. and Mexico. And now, discoveries of major petroleum and gas reserves in Mexico have increased this tangle and given Mexico a new importance to the U.S.

Mexico has tremendous potential as a market for U.S. agricultural products and as Mexico develops—through its oil industry—there will be greater opportunities for the exchange of goods and services between the two countries.

However the U.S. may be faced with the dilemma: if we want to import Mexican gas and oil, and export more U.S. products to Mexico, we may have to let in more goods that compete with some items produced domestically.

Export market

Mexico is our fifth largest export market—taking $6.7 billion worth of farm and nonfarm products in 1978, which was up sharply from $1.7 billion at the start of the decade.

As a market for U.S. farm products, Mexico ranked first among Latin American countries and eighth in the world. Our agricultural sales south of the border reached $902 million in 1978, an increase of more than fourfold since 1970.

While Mexico's general import policies are restrictive, private industry and business interests rely increasingly upon imported agricultural commodities such as oilseeds, grains, hides and skins, animal fats, and processed food products. Demand for soybeans, soybean meal, and corn and sorghum is growing fast as Mexico's poultry and hog production increases.

Rising demand

In the future, Mexico's rising demand for agricultural products made possible by high oil revenues is expected to outstrip its ability to produce these products at home. This will give U.S. producers a chance to expand exports of both raw and processed agricultural products.

While Mexico is an important market for U.S. farm exports, the U.S. is also a most attractive export market for Mexican manufacturers because of its size and location.

Mexico now has surplus quantities of ammonia fertilizers available for export—and plans to increase exports of finished fertilizer, too. In the U.S. the fertilizer industry is the single largest industrial user of natural gas.

Increased competition

U.S. fertilizer manufacturers assuredly are not happy about facing increased or new competition from Mexico. However, this could be very beneficial to U.S. farmers and consumers.

Time was when Mexico's big agricultural sales to us were coffee, cocoa, and bananas—which posed no problem since we didn't grow these products ourselves.

While our imports of these traditional items are still sizable, the most dramatic increase in recent years has been in imports of such competitive products as animals and animal products and, in particular, fruits and vegetables.

More than doubled

Our imports of fruits and vegetables have more than doubled since the start of the decade. Mexico's share of the $400-million-plus U.S. winter vegetable market is now about half—and some U.S. producers feel that's plenty big enough.

The upshot is the current "Tomato War" which State Department and USDA negotiators are trying to settle in some very delicate negotiations.

The dispute centers around charges by Florida farmers that Mexican growers are attempting to corner the vegetable market by flooding the U.S. with produce at less-than-market value.

However, the U.S. Treasury Department announced in late October a contingent decision that five types of fresh winter vegetables—tomatoes, squash, eggplant, peppers, and cucumbers—from Mexico are not being sold in this country at "less than fair value" under the terms of antidumping legislation passed by Congress in 1921.

Market share battles

Other U.S. producers may face similar battles over market shares for other winter grown commodities, since Mexico has the labor, land, and—thanks to its oil revenues—the capital to expand its production of a number of competitive winter crops still further.

And Mexico will doubtless look north to the U.S. for markets, particularly if we are looking south to Mexico for oil and markets.

The Mexican government is expected to continue to give high priority to improving income distribution and raising the standard of living of low income groups. If successful, this will boost demand for many U.S. agricultural products.

As a result, in the short run some U.S. producers may lose markets to Mexico but in the long run Mexico may well become a bigger market for U.S. farm products. One group of U.S. producers may be hurt while other producers (corn, sorghum, wheat, soybeans, and perhaps livestock) gain.

Overall U.S. farmers would gain from having larger fertilizer supplies and additional gas and oil supplies. Consumers would also benefit by potentially lower food costs through more access to cheaper Mexican products.

[Based on special material provided by John Link of the International Economics Division.]

The Fields Runneth Over

Intensive exploration for oil in Mexico has led to the discovery of fields so immense they are changing conventional ideas about world oil supplies.

Proven reserves total 40 billion barrels; however, the many promising geological formations and the profuse productivity of present oil wells suggest Mexico's reserves could top 100 billion barrels. This would be second only to the 170 billion barrels of proven reserves in Saudi Arabia.

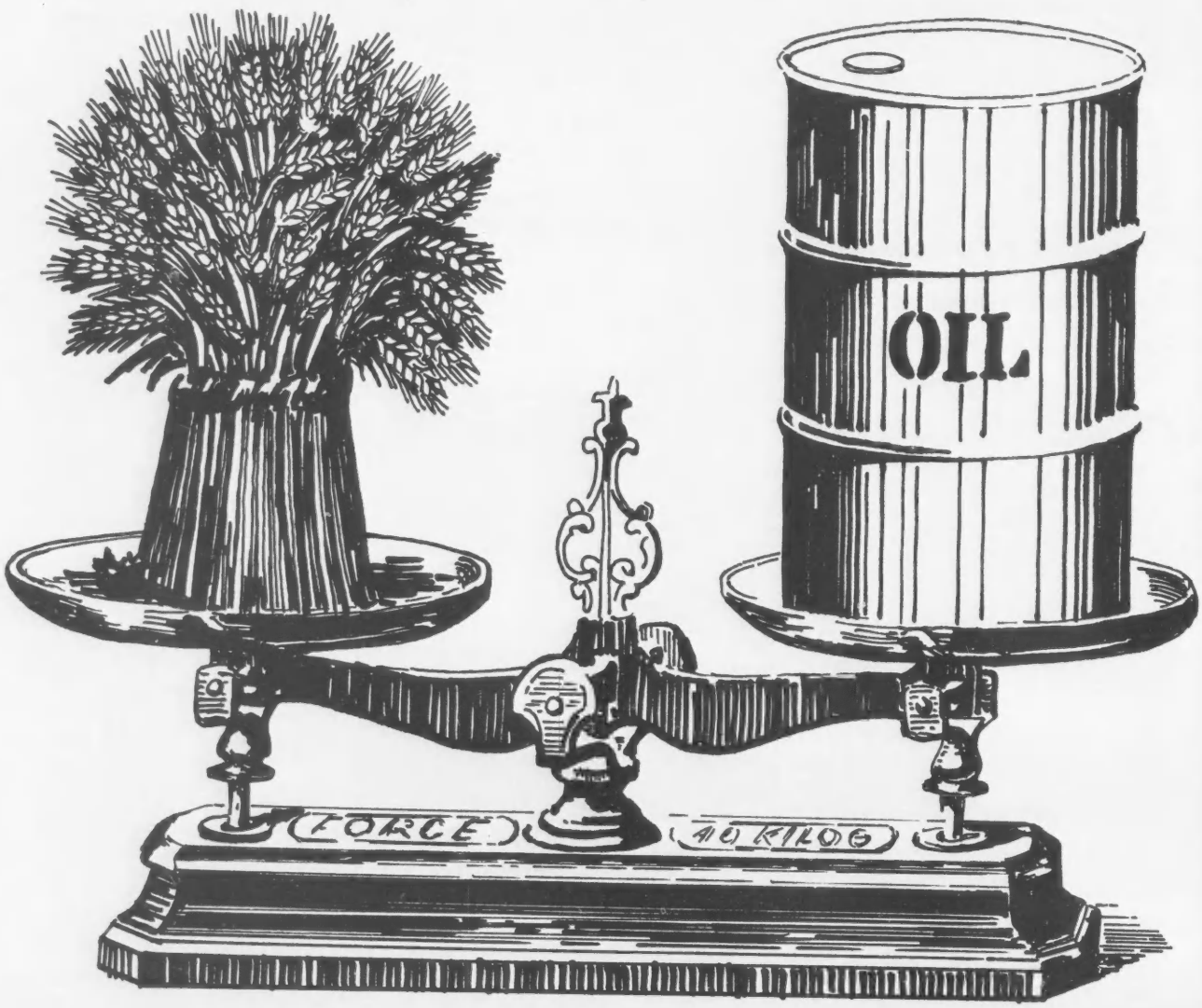
Even if Mexico eventually ends up having only half this estimate, 50 billion barrels are still more than all of the proven oil reserves in the United States, which are currently about 30 billion barrels.

Mexico's oil prices conform to OPEC levels, but Mexico has no plans to join the oil organization because it wishes to avoid political restrictions and controls on production levels. Also, Mexico would lose its favored trade status with the United States.

While roughly 80 percent of Mexico's oil exports this year will be to the United States, the Mexican government is working hard to diversify its oil export markets. Next year our share could be down to about two-thirds, with Europe and Japan taking the rest.

However, the U.S. won't actually end up receiving less Mexican oil, even if our market share declines, since Mexico's oil exports are rising so rapidly. Next year we could receive about 720,000 barrels a day, versus 170,000 daily in 1977 when our share of total exports was 85 percent.

A Bushel For a Barrel?



Can America's troubled economy, faced with escalating oil prices, be bolstered by sending the nucleus of American prosperity—grain—to the rescue?

Acknowledging that U.S. trade with OPEC is not a one-way street—America looks to them for oil and they look to the U.S. for grain.

Many observers contend that the U.S. should protest high oil prices by either:

- Cutting off supplies of grain to OPEC until oil prices are lowered;
- Raising grain prices to coincide with oil prices;
- Or by simply trading "a bushel for a barrel."

Since 1972, the price charged by OPEC for oil has more than quadrupled. The cost to the U.S. for imported oil, during this period, has climbed from $3 billion to over $33 billion.

Increased petroleum revenues

On a global scale, although OPEC's oil and production exports have not exceeded 1973's quantity levels, price rises have allowed OPEC to increase their total petroleum revenues from $25 billion in 1973 to nearly $200 billion in 1979.

Likewise, during the same period OPEC's agricultural imports increased from $3.4 billion in 1973 to $11.7 billion in 1978. In 1979, OPEC is expected to import $14 billion in agricultural products.

OPEC wheat imports in 1979 are estimated at 11 million tons—double the 1973 level. Over 80 percent of the bread eaten in major OPEC cities is made from the imported wheat and flour.

This year, the U.S. is expected to supply 17 percent, or $2.3 billion, of OPEC's agricultural imports. Last year the United States provided more than half of the wheat imported by OPEC, one-third of the rice, and one-fourth of the coarse grains.

Grain exports invaluable.

U.S. grain exports have been invaluable to our agricultural prosperity and balance of payments, partially covering for the cost of imported oil.

However, exactly how vital U.S. grain is to OPEC is the subject of much controversy.

Proponents of the movement say a U.S. grain embargo would leave OPEC vitually grainless. They say reduced grain shipments to OPEC would be economically upsetting and possibly cause political uneasiness.

Those who support the idea of an embargo contend that collaboration between the U.S., Canada, and Australia (the three largest grain exporters) would be necessary.

Bargaining power

The three governments would then have to agree on common production, pricing, storage, and selling policies in order to exert bargaining power in the world grain trade.

If the U.S. tried to act alone against OPEC, any of the other exporting giants could easily replace the U.S. shipments.

This would also entail the formation of a national grain trading board empowered to handle all sales of U.S. grain to other countries.

The board would be responsible for setting a national price for each category of U.S. grain and allocating the amount of grain each importing country would be allowed to receive. This is a departure from the traditional policy of free enterprise in the U.S.

Opponents of the plan say that U.S. grain to OPEC is nowhere near as important as OPEC oil is to the U.S. They say that the amount of grain OPEC imports is relatively little when compared to total world production and it would be easy for any OPEC nation to import the grain it needs from any of the smaller producing countries.

Produce their own

Another alternative frequently mentioned for a grain-embargoed OPEC would be for them to produce more of their own grain. Those opposed to the plan say this would lead to a "can't win" situation for the U.S. because while OPEC produces their own grain where would we find more oil?

Even those opposed to a grain embargo readily admit that in the short run a curtailment of grain shipments to OPEC nations would cause them considerable hardship. But they also contend that in the long run the real losers will be farmers who grow and sell grain along with America's agri-business.

In the midst of this controversy one thing is certain, even a successful grain embargo on OPEC would not solve the real problem—U.S. dependency on foreign oil.

Cutting back on oil imports and finding alternative energy sources would. This should be the ultimate goal of both factions.

[Based on the USDA Issue Briefing Paper, "A Bushel Of Wheat For A Barrel Of Oil," the article "Agricultural Exports to OPEC Expanding," in Agricultural Outlook, Jan-Feb., 1979, the International Economic Division's World Agricultural Highlights and other special materials.]

Dollars For Box Tops

In struggling to squeeze buying power from the food dollar, one option consumers frequently overlook is the manufacturer's refund.

A study by the Nielson Clearing House (NCH) revealed that although 74 percent of U.S. households were aware of refund offers, only 27 percent had ever taken advantage of them. And only 17 percent had used them during the year prior to the survey.

Despite this apparent lack of use,

refunds represent potentially great savings on the family food bill. Some experienced refunders find that if shoppers take advantage of refund offers wisely, they can collect as much as $1,000 in refunds each year.

More refunds

The number and value of consumer refunds have been growing by leaps and bounds in recent years. The average refund—worth about 30 cents in the 1960s—had risen to about 80 cents by 1977. Current estimates put the average value of manufacturers' refunds at about $1.25. And about 7,000 refunds will be offered this year alone.

To receive a refund, the consumer typically must collect a specified number of proofs-of-purchase from the advertised product and send them in to the manufacturer. Some manufacturers require that an official refund form accompany the proofs; many do not.

Most refund offers—about 62 percent—are for cash. About 22 percent of the refunds come as coupons good on a future purchase of the manufacturer's product, and the rest are checks.

Variable refunds

Recently, manufacturers have been offering "variable refunds," which give the consumer a choice of rewards. The offer might require, for example, three proofs-of-purchase for a $4.00 cash refund, two proofs for $2.50, or one proof for $1.50.

In addition, many manufacturers are sending "surprise bounceback" coupons as a bonus along with the actual refund. These coupons may be redeemed by purchasing the advertised product, a different product manufactured by the same company, or sometimes a totally unrelated product distributed by another company.

Manufacturers advertise refund offers in one of four ways. About 41 percent of the offers appear in print media (newspapers, magazines, and supplements), 26 percent on tear-off pads in grocery stores, 16 percent in or on the food package, and 17 percent through a combination of these methods.

Advertising response

The method of advertising greatly affects consumer response to a refund offer. The print media, although handling the largest number of refund advertisements, elicits the lowest level of consumer response.

Advertising in or on the promoted product generates more consumer interest than any other method. The response rate to these refund offers is nearly 7 times higher than for offers in the print media.

Consumer response to a refund offer is also affected by 1) the value of the refund, 2) the number of proofs required, 3) the length of the promotion period, and 4) the consumer's interest in or need for the product being promoted.

By manipulating these variables, manufacturers can encourage or discourage consumers from sending in for refunds.

Response rates

According to the 1977 NCH survey, response rates generally are highest for refund offers having a large monetary incentive, 3 or fewer required proofs, and a promotion period of at least 4 months.

If a refund offer requires, for example, more than 3 proofs-of-purchase, some consumers may begin collecting the proofs but then fail to obtain the required number. Such "slippage" from a refund campaign increases movement of the manufacturer's product but results in fewer actual refunds.

On the other hand, if the manufacturer is trying to encourage brand loyalty or reward regular customers, a simpler, more attractive campaign will be used to maximize the number of consumers sending in for the refund.

In an effort to arouse consumer awareness of the potential savings involved in refunding, some private individuals have recently begun compiling refund bulletins. These bulletins advertise over 100 new refund offers each month, including pertinent information about the offers and tips for the beginning refunder.

Weekly columns

In addition, some newspapers have started publishing weekly columns that list currently available refund offers.

From the consumer's standpoint, one of the pitfalls of refund offers is their invitation to impulse buying. The NCH survey showed that about 36 percent of those who had sent in for refunds were influenced by refund offers to buy products they did not normally use or need.

Nevertheless, for the consumer who shops wisely and is looking for new way to ease the bite of inflation, manufacturer's refunds can bring in hefty monetary rewards.

[Based on special material provided by Charlene Price, National Economics Division.]

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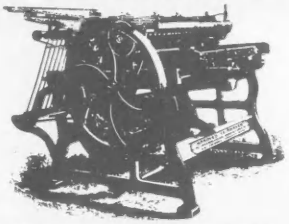

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Economic Feasibility of a Biological Control Technology: Using a Parasitic, Wasp, *Pedioubius Foveolatus*, to Manage Mexican Bean Beetle on Soybeans. Katherine H. Reichelderfer, Natural Resource Economics Division. AER-430.

Mexican bean beetle control options include conventional chemical control and biological control by a parasitic wasp. Both options can yield similar returns to pest control expenditures on soybeans. Biological control, through an organized regional program, could reduce the impact of pesticides on the environment without hurting farm revenues.

Energy and U.S. Agriculture: Irrigation Pumping, 1974–77. Gordon Sloggett, Natural Resource Economics Division. AER-436.

Land irrigated with on farm pump water increased by more than 5 million acres from 1974 to 1977. Energy costs to pump the water increased from $570 million to more than $1 billion during the period. Yet increased costs failed to slow pump irrigation. Electricity was used most to power pumps for irrigated acreage, followed by natural gas, diesel, liquified petroleum gas (LPG), and gasoline. Diesel used to pump irrigation water about doubled from 1974 to 1977, with modest increased for electricity and natural gas. The use of LPG and gasoline declined.

Prospects for Productivity Growth in U.S. Agriculture. Yao-chi Lu, Philip Cline, and Leroy Quance, ESCS. AER-435.

U.S. agricultural productivity will continue to grow through the turn of the century. However, the rate of growth may decline to 1.1 percent if only the historical rate of support for research and extension (R & E) is maintained and no new and unprecedented technologies emerge. Increased agricultural R & E support and reasonable success in R & E programs could generate a productivity growth rate by 2025 equal to the rate during the past half-century 1.5 percent.

Grocery Retailing Concentration in Metropolitan Areas, Economic Census Years 1954–72. Gerald E. Grinnell, Russell C. Parker and Lawrence A. Rens, ESCS. Unnumbered.

This statistical report examines the structure of grocery retailing in metropolitan areas. Historical trends of market concentration, payroll expenses, selling area, sales per store, geographical diversification and other information are presented for supermarkets, small grocery stores, and all grocery stores.

Grain-Dust Pelleting Costs and Capital Requirements for Stationary and Portable Plants. L.D. Schnake, National Economics Division. ESCS-71.

Grain handlers can reduce the hazards associated with grain dust by pelleting the dust. Investment and operating costs are estimated for a portable plant and three sizes of independent stationary and add-on stationary plants (built adjacent to a grain-handling facility) at inland and port locations. Operating costs for the portable plant range from $15.17 to $55.57 per ton, depending on the level of production. Operating costs for the stationary plants range from $12 to $72 per ton, depending on the daily operating time, plant size, type and location.

State Experiment Stations

Addresses of State experiment stations:

A ready reference list for readers wishing to order publications and source material published through State experiment stations.

STATE	CITY	ZIP CODE
ALABAMA	Auburn	36830
ALASKA	Fairbanks	99701
ARIZONA	Tucson	85721
ARKANSAS	Fayetteville	72701
CALIFORNIA	Berkeley	94720
	Davis	95616
	Parlier	93648
	Riverside	92521
COLORADO	Fort Collins	80523
CONNECTICUT	New Haven	06504
	Storrs	06268
DELAWARE	Newark	19711
DISTRICT OF COLUMBIA	Washington	20008
FLORIDA	Gainesville	32611
GEORGIA	Athens	30602
	Experiment	30212
	Tifton	31794
GUAM	Agana	96910
HAWAII	Honolulu	96822
IDAHO	Moscow	83843
ILLINOIS	Urbana	61801
INDIANA	West Lafayette	47907
IOWA	Ames	50011
KANSAS	Manhattan	66506
KENTUCKY	Lexington	40506
LOUISIANA	Baton Rouge	70803
MAINE	Orono	04473
MARYLAND	College Park	20742
MASSACHUSETTS	Amherst	01003
MICHIGAN	East Lansing	48824
MINNESOTA	St. Paul	55108
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MISSOURI	Columbia	65201
MONTANA	Bozeman	59715
NEBRASKA	Lincoln	68583
NEVADA	Reno	89507
NEW HAMPSHIRE	Durham	03824
NEW JERSEY	New Brunswick	08903
NEW MEXICO	Las Cruces	88003
NEW YORK	Ithaca	14853
	Geneva	14456
NORTH CAROLINA	Raleigh	27607
NORTH DAKOTA	Fargo	58102
OHIO	Columbus	43210
	Wooster	44691
OKLAHOMA	Stillwater	74074
OREGON	Corvallis	97331
PENNSYLVANIA	University Park	16802
PUERTO RICO	Rio Piedras	00928
RHODE ISLAND	Kingston	02881
SOUTH CAROLINA	Clemson	29631
SOUTH DAKOTA	Brookings	57006
TENNESSEE	Knoxville	37901
TEXAS	College Station	77843
UTAH	Logan	84322
VERMONT	Burlington	05401
VIRGINIA	Blacksburg	24061
VIRGIN ISLANDS	St. Croix	00850
WASHINGTON	Pullman	99164
WEST VIRGINIA	Morgantown	26506
WISCONSIN	Madison	53706
WYOMING	Laramie	82071

Economic Trends

[1]Ratio of index of prices received by farmers to index of prices paid, interest, taxes, and farm wage rates. [2]Beginning January 1978 for all urban consumers. [3]Revised to adapt to weighting structure and retail price indexes for domestically produced farm foods from the new Consumer Price Index for all urban consumers (CPI-U) published by the Bureau of Labor Statistics. [4]Annual and quarterly data are on a 50-State basis. [5]Annual rates seasonally adjusted 3rd quarter. [6]Seasonally adjusted. [7]As of March 1, 1967. [8]As of February 1.

Source: USDA (Agricultural Prices, Foreign Agricultural Trade, and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Monthly Retail Trade Report, and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force, Wholesale Price Index, and Consumer Price Index).

Item	Unit or Base Period	1967	1978 Year	1978 Sept.	1979 July	1979 Aug.	1979 Sept.
Prices:							
Prices received by farmers	1967=100	—	210	217	244	237	240
Crops	1967=100	—	204	205	240	235	224
Livestock and products	1967=100	—	217	227	250	239	255
Prices paid, interest, taxes, and wage rates	1967=100	—	219	223	251	251	254
Prices paid (living and production)	1967=100	—	212	216	243	243	246
Production items	1967=100	—	216	220	250	249	253
Ratio[1]	1967=100	—	96	97	97	94	94
Producer prices, all commodities	1967=100	—	209.3	212.4	236.6	238.1	241.7
Industrial commodities	1967=100	—	209.4	212.5	237.2	240.3	243.8
Farm products	1967=100	—	212.7	215.1	246.8	238.5	241.0
Processed foods and feeds	1967=100	—	202.6	205.5	223.0	220.3	225.7
Consumer price index, all items[2]	1967=100	—	195.4	199.3	218.9	221.1	223.4
Food[2]	1967=100	—	211.4	215.6	236.9	236.3	237.1
Farm Food Market Basket:[3]							
Retail cost	1967=100	—	199.4	203.9	225.9	223.5	223.7
Farm value	1967=100	—	207.4	214.2	229.7	224.2	227.0
Farm-retail spread	1967=100	—	194.5	197.5	223.5	222.9	221.6
Farmers' share of retail cost	Percent	—	39.3	39.6	38.4	37.9	38.3
Farm Income:[4]							
Volume of farm marketings	1967=100	—	123	131	106	116	—
Cash receipts from farm marketings	Million dollars	—	111,042	9,736	9,655	10,114	—
Crops	Million dollars	—	52,051	4,547	4,217	4,576	—
Livestock and products	Million dollars	—	58,991	5,189	5,438	5,538	—
Gross income[5]	Billion dollars	50.5	126.0	123.7	—	—	143.5
Farm production expenses[5]	Billion dollars	38.2	98.1	97.4	—	—	114.0
Net income[5]	Billion dollars	12.3	27.9	26.3	—	—	29.5
Agricultural Trade:							
Agricultural exports	Million dollars	—	—	2,267	2,715	2,735	2,735
Agricultural imports	Million dollars	—	—	1,116	1,260	1,311	126.4
Land Values:							
Average value per acre	Dollars	[7]168	[8]488	—	[8]559	—	—
Total value of farm real estate	Billion dollars	[7]189	[8]512	—	[8]584	—	—
Gross National Product:[5]	Billion dollars	796.3	2,127.6	2,159.6	—	—	2,391.5
Consumption	Billion dollars	490.4	1,350.9	1,369.3	—	—	1,528.6
Investment	Billion dollars	120.8	351.5	356.2	—	—	392.1
Government expenditures	Billion dollars	180.2	435.6	440.9	—	—	476.2
Net exports	Billion dollars	4.9	−10.3	−6.8	—	—	−5.3
Income and Spending:[6]							
Personal income, annual rate	Billion dollars	626.6	1,717.4	1,756.1	1,931.9	1,943.0	1,955.2
Total retail sales, monthly rate	Billion dollars	24.4	66.6	68.1	72.3	74.6	76.3
Retail sales of food group, monthly rate	Billion dollars	5.8	14.5	14.8	16.2	16.1	16.6
Employment and Wages:[6]							
Total civilian employment	Millions	74.4	94.4	95.0	97.2	96.9	97.5
Agricultural	Millions	3.8	3.3	3.4	3.3	3.3	3.4
Rate of unemployment	Percent	3.8	6.0	5.9	5.7	6.0	5.8
Workweek in manufacturing	Hours	40.6	40.4	40.7	40.2	40.0	40.2
Hourly earnings in manufacturing, unadjusted	Dollars	2.83	6.17	6.28	6.71	6.69	6.79
Industrial Production:[6]	1967=100	—	146.1	148.6	152.6	151.5	152.3
Manufacturers' Shipments and Inventories:[6]							
Total shipments, monthly rate	Million dollars	46,487	125,317	127,029	141,089	142,432	—
Total inventories, book value end of month	Million dollars	84,527	197,802	192,412	216,940	219,360	—
Total new orders, monthly rate	Million dollars	47,062	129,263	129,870	139,934	142,745	—

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